



Big Boy and other Articulated Locomotives

FROM THE COLLECTION OF FRED VAN DER LUBBE

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2 Introduction

When making an inventory for an e-book on tank engines I came across a number of articulated tank engines. I wondered whether to fit these in that e-book or maybe make a book on articulated locomotives¹, so I made an inventory of articulates in the collection. I found out there were not that many, so a thin e-book (or an e-magazine) would suffice.

The large American articulated locomotives have been popular with model train enthusiasts for more than 50 years, so it is no surprise that the largest numbers of articulates in my collection are American types. The few others are German types.

The terminology articulated locomotives or Mallet locomotives is sometimes used interchangeably. I think it is correct to call a locomotive a Mallet locomotive when it is a compound locomotive with high- and low-pressure cylinders. The very complete and recommended inventory made by Lucien-Maurice Vilain with the name “Articulated locomotives of the World of the Mallet type” however includes all articulated locomotive but for the logging types Shay, Heisler and Climax. I include the latter types also here in my book.

This book or catalogue will not elaborate on the history of the locomotives. There are many books that go into this and a lot can be found in Wikipedia or other internet resources.

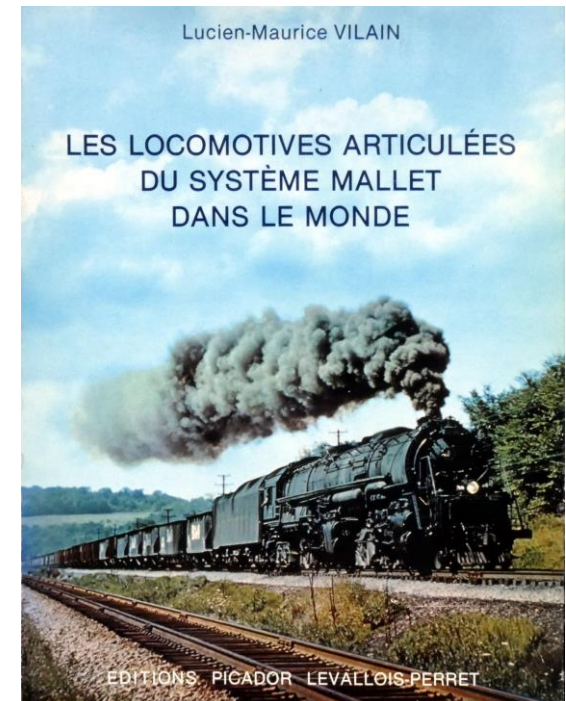
Again, another interesting but not covered area is the history of the makers or brands of the models described here.

Acknowledgements

Thanks to Tamme and Jacques for tips and proofreading.

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¹ An articulated locomotive is a steam locomotive with one or more engine units that can move independent of the main frame. Articulation allows the operation of locomotives that would otherwise be too large to negotiate a railroad's curves, whether mainlines or special lines with extreme curvature such as logging, industrial, or mountain railways.

² Except for the picture at the cover; this shows my Big Boy at Leek and was made by Nico.

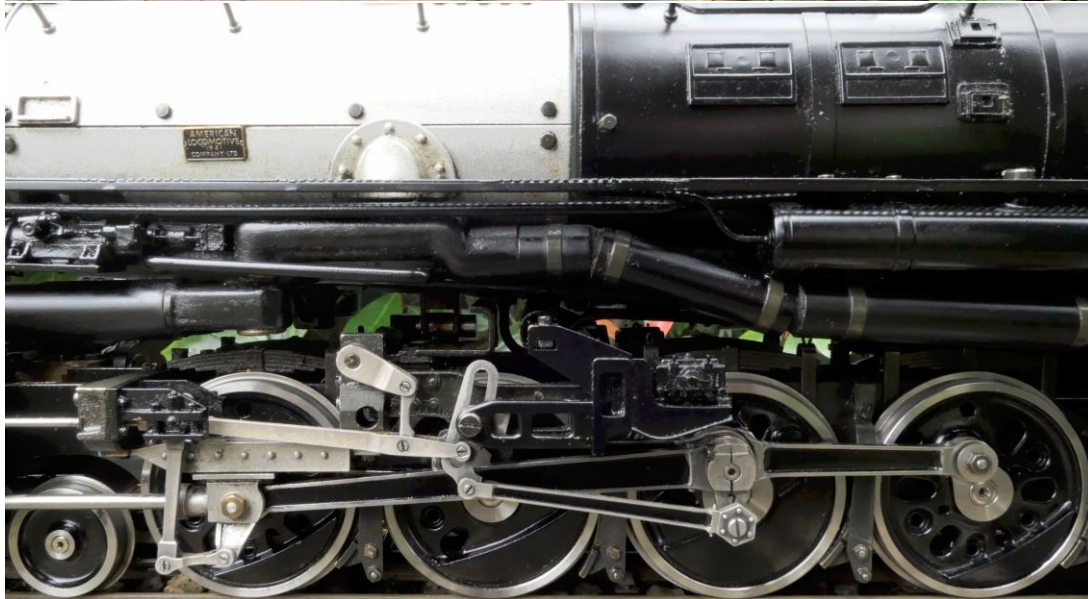
3 American articulated locomotives

3.1 Union Pacific Big Boys

The Union Pacific Big Boy is a type of simple articulated 4-8-8-4 steam locomotive manufactured by the American Locomotive Company (ALCO) between 1941 and 1944 and operated by the Union Pacific Railroad. 25 Big Boy locomotives were built, I have 6 in my collection in gauges 1, 0, H0 and N.

The first to mention of course is the largest of them all; the Gauge 1 live steam Big Boy number 4002 made by ASTER. This model was made in 1980 and was available RTR or in a kit. My version is a kit that I made in 1981. It could be made to be fired with coal or with gas and after some trial and error my Big Boy runs on gas. The model is of course completely made of metal and has a length of 125 cm.









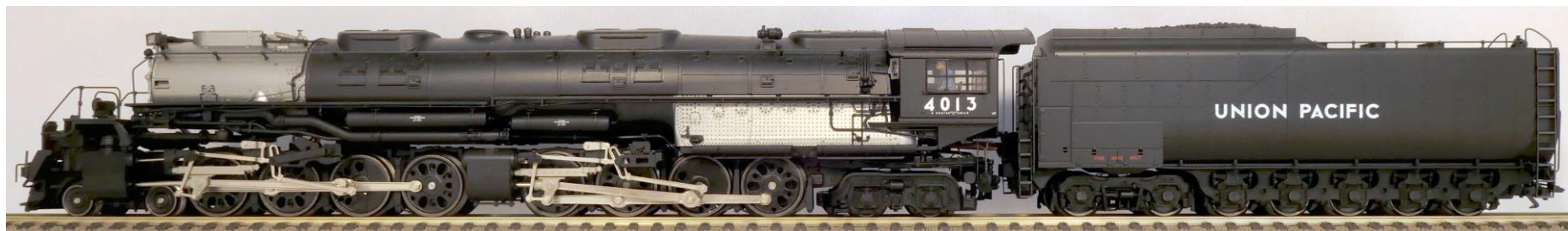
The 0-gauge Big Boy is a 3-rail electric locomotive with running number 4012 made by MTH in their Premier line. It has catalogue number 20-3021-1 and became available in 1997. MTH made a number of Big Boys through the years, but this was the first version they made. I received this as a present from D&J; the largest present I ever got. The locomotive and tender body are cast metal which makes it not only a Big but also a Heavy Boy with a length of 88 cm.



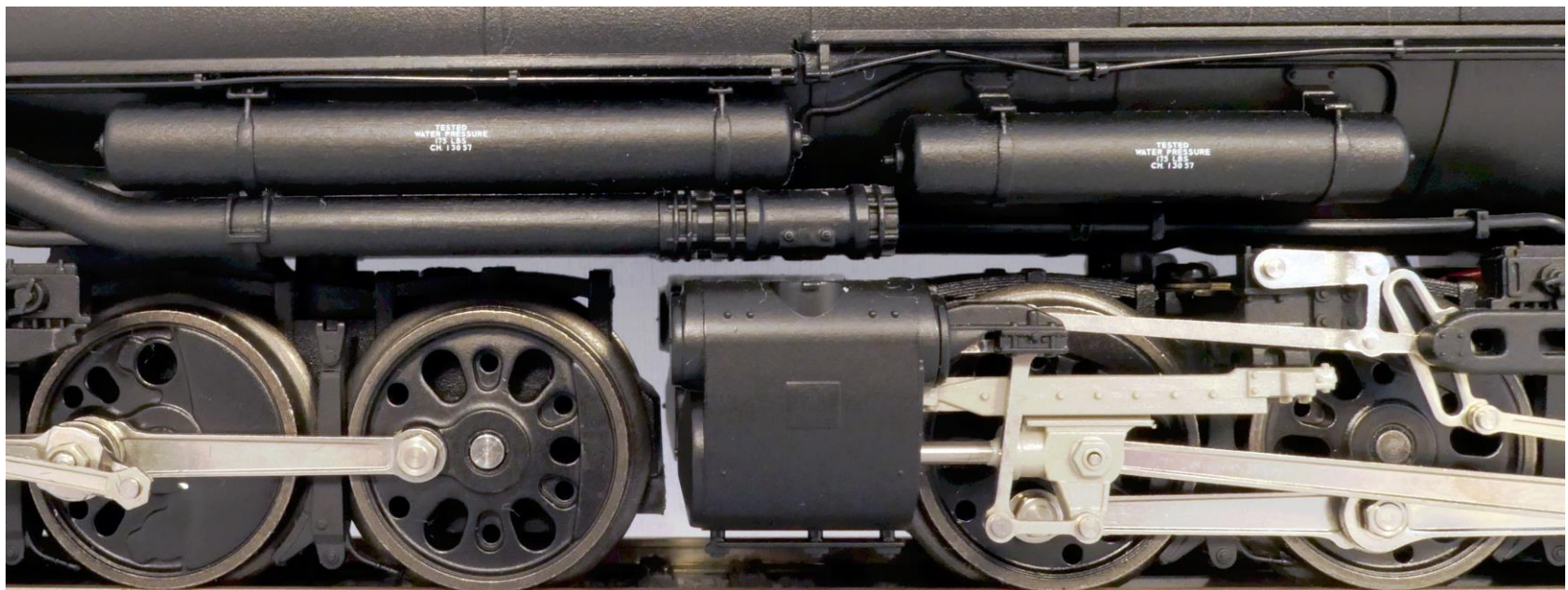




Since 2001 Märklin has issued a number of Big Boy locomotives for H0 gauge. The first was the locomotive with running number 4013. This is a Märklin Digital model with sound. The model is completely made of metal and nicely detailed. It was issued in a wooden box to underline that it was a luxury model. The catalogue number of this 47 cm long model is 37990.

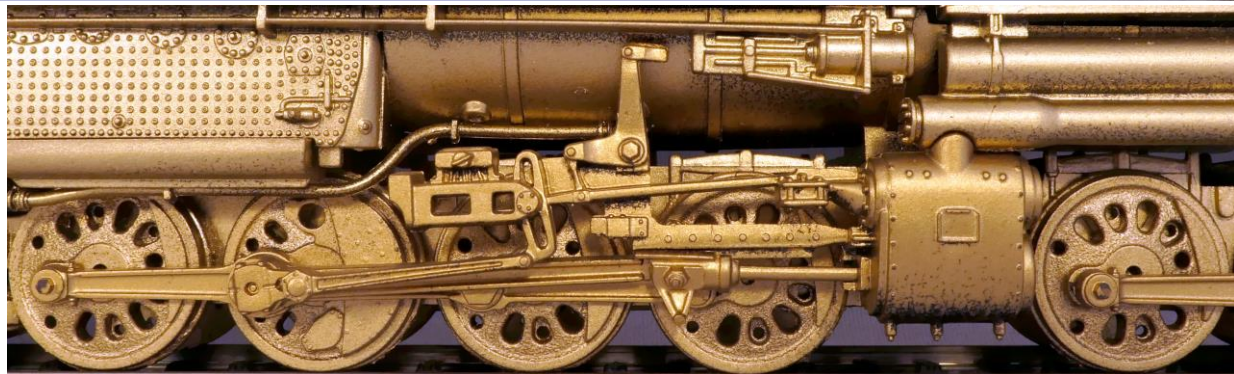




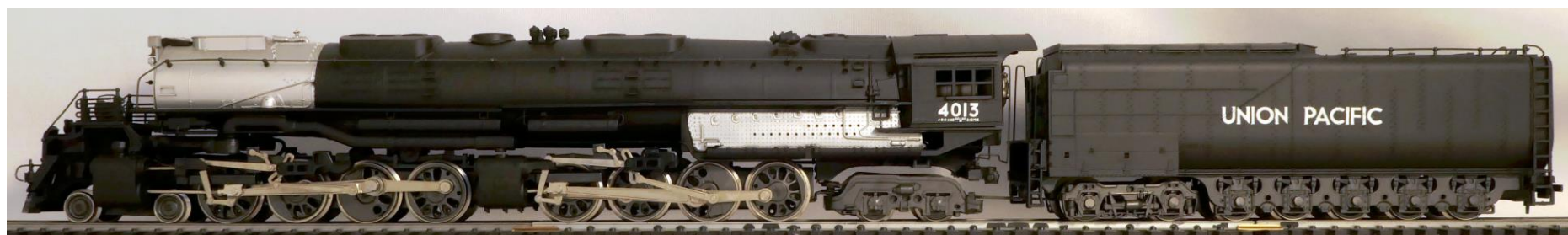


The plastic kit maker Monogram made a kit for a Union Pacific Big Boy. The locomotive built from the kit had no moving parts. The kit contained decal-lettering and all parts were black plastic. I decided to make a brass like model by painting all parts and not use the decals; in the eighties RivaRossi as well as Jouef issued non-motorized versions of some of their locomotives painted in a brass like color to make use of the popularity of real brass models as made by Japanese and Korean model builders. As far as I remember I painted the Big Boy with a brush and not by spraying paint.





RivaRossi already made in 1967 a H0 model of the UP Big Boy. The version I have is Big Boy 4013 with catalogue number 1254/2 made in 1978. Of course, it does not have the detail as the Märklin model made 35 year later, but it was a sensational model when it was released. All 8 wheels are powered and the articulation allows to run it on track with a radius of only 40 cm, this does look a bit silly when done. Length of this plastic bodied model is 47 cm.





3.2 Other Union Pacific Articulates

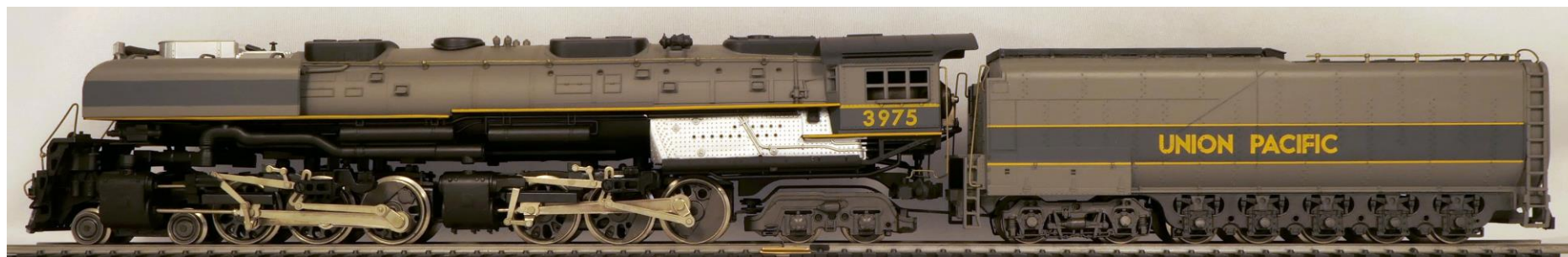
Before the Big Boy the Union Pacific already had a number of smaller 4-6-6-4 articulated locomotives, the so-called Challengers. In my collection there is a 0 gauge and a H0 gauge version of the Challenger. Further I have an older type 2-8-8-2 articulated locomotive of the Union Pacific in H0.

The 0-gauge 4-6-6-4 Challenger is an older Williams Crown Edition brass model made in Korea with catalogue number 7000. This is a Challenger in so called greyhound livery. Length of this 3-rail electric brass model is 82 cm.



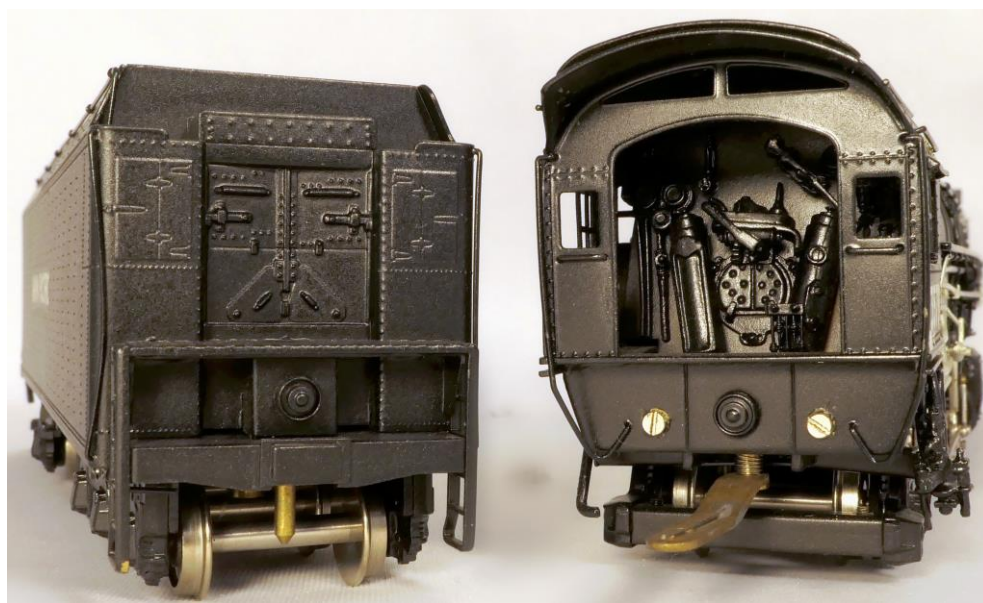


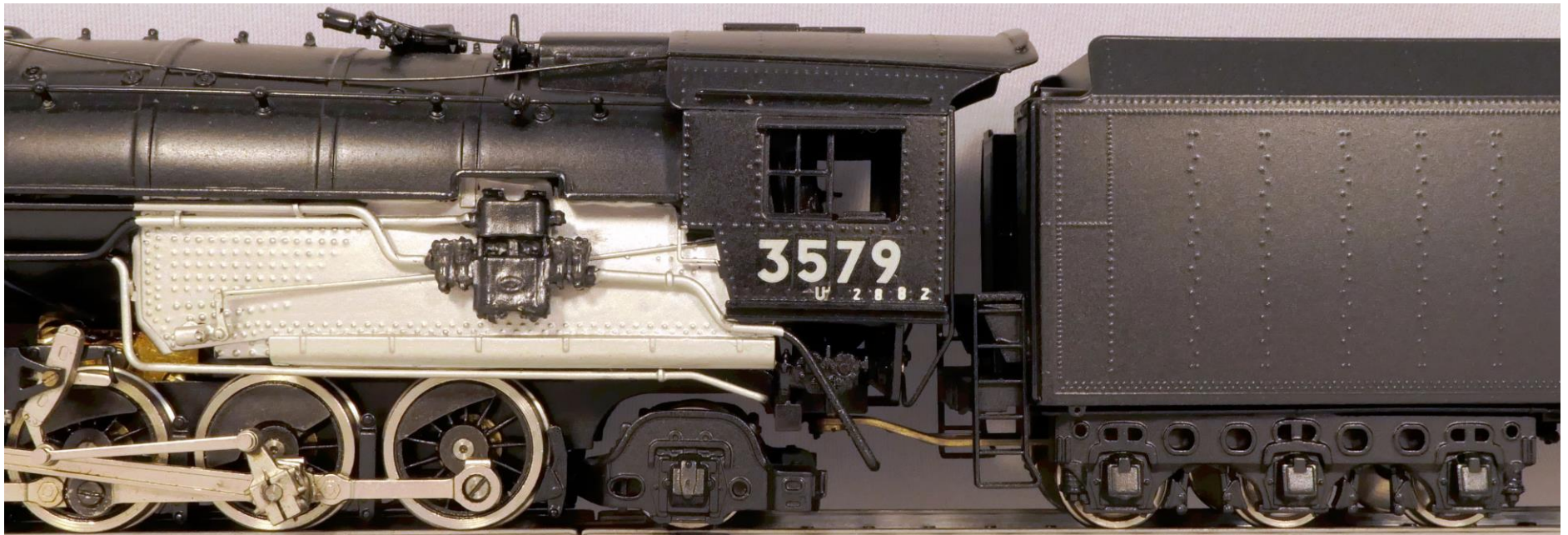
RivaRossi made a H0 gauge Union Pacific Challenger with running number 3975 in 1978. This is a two-tone grey (greyhound) version with smoke deflectors and yellow lettering and striping, as used for a few years to match the UP yellow streamlined passenger cars. This plastic model has catalogue number 1253 and is 43 cm long.

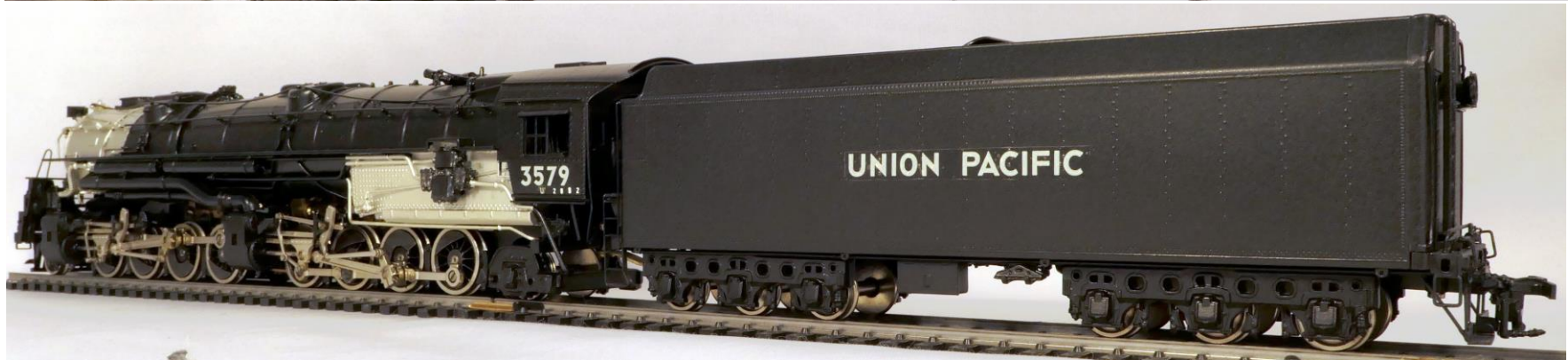




NJ Custom Brass imported this model of a Union Pacific 2-8-8-2. 200 models of this articulated locomotive were made by the Japanese brass locomotive maker GOM in their Royale series in 1979. The real locomotive was acquired by the UP from the C&O (Chesapeake & Ohio Railroad) where it was class H-7. It came with UP decals and it was custom painted and equipped with decals for me by the Dutch company Philotrain. This nicely detailed model is 42 cm long.







3.3 Southern Pacific Cab Forwards

The Southern Pacific Cab Forward articulated locomotives (also known to a lesser extent as "Cab-in-fronts" and "Cab-aheads") placed the cab at the front by the simple expedient of turning the entire locomotive, minus the tender, by 180 degrees. This arrangement was made possible by burning fuel oil instead of coal. The Southern Pacific had a number of different versions of Cab Forwards. I have a 0 gauge and two H0 gauge Cab Forwards.

The 0-gauge Cab Forward is a model of a type AM-2 4-6-6-2 locomotive with running number 3900. These locomotives were rebuilt from compound Mallets to four single cylinder locomotives. The model is of the latter. It is a very nicely detailed brass, 2-rail electric, model by Sunset 3rd Rail and is 69 cm long .

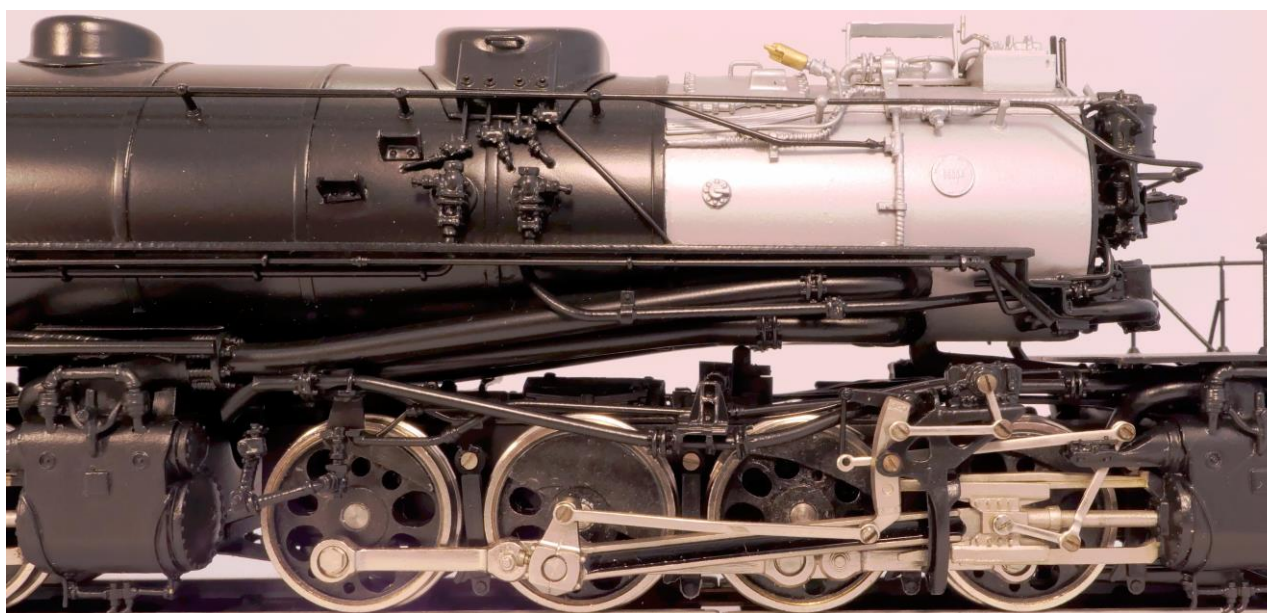
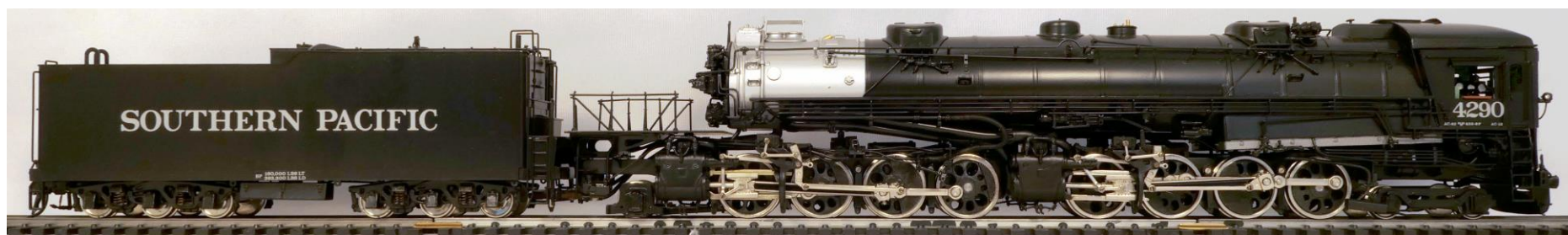


The locomotive has the pre-war style of lettering with Southern Pacific Lines on the tender.

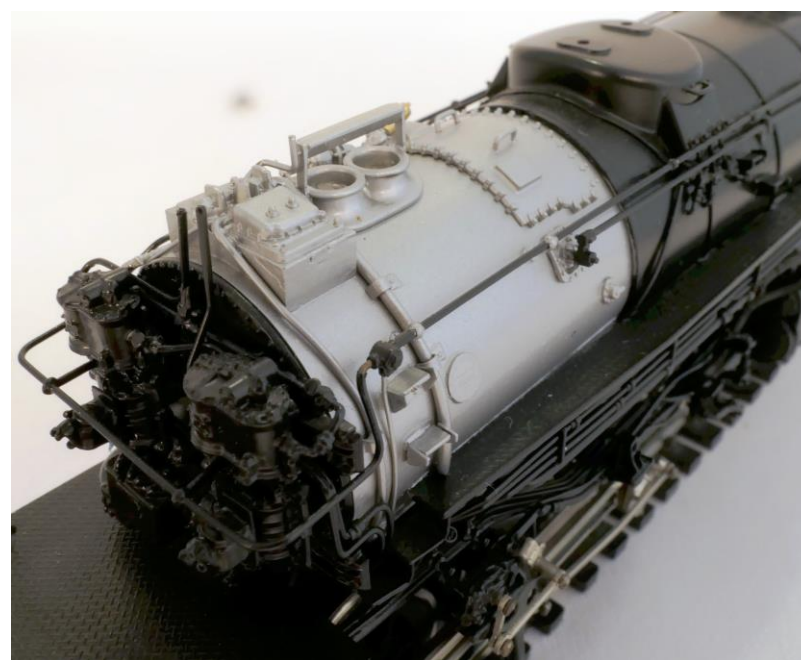




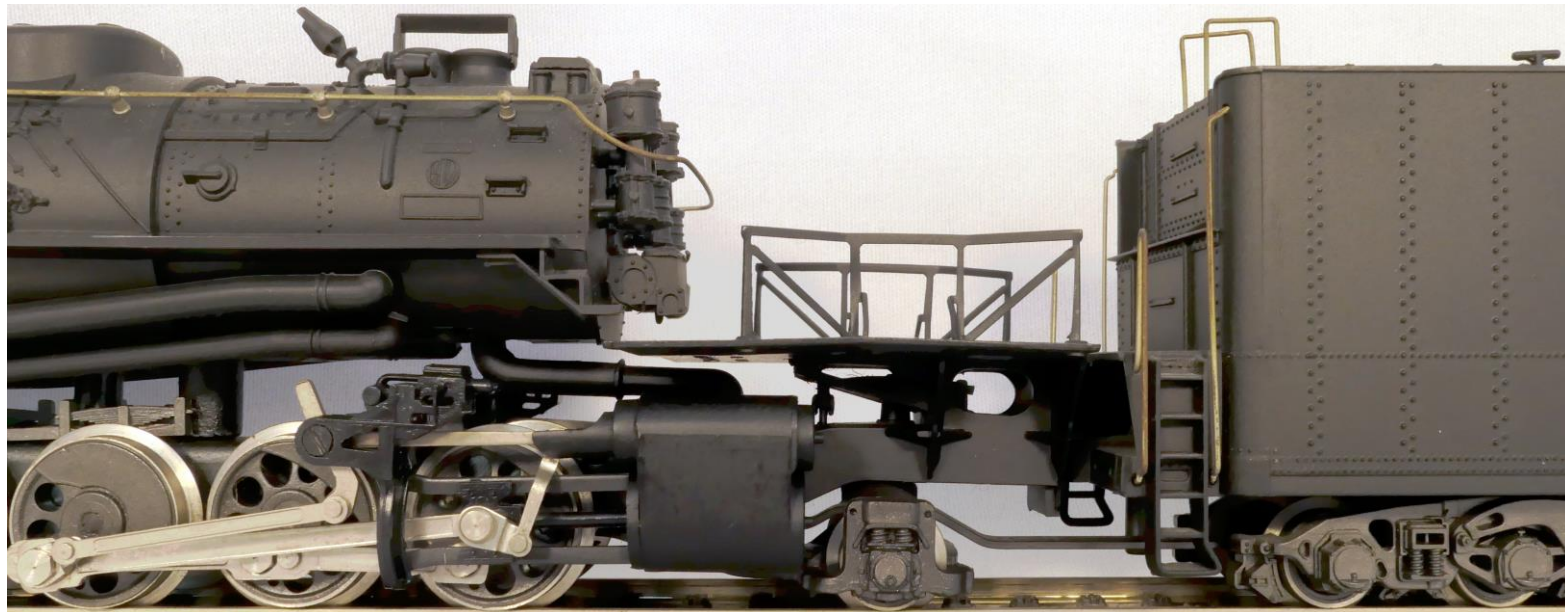
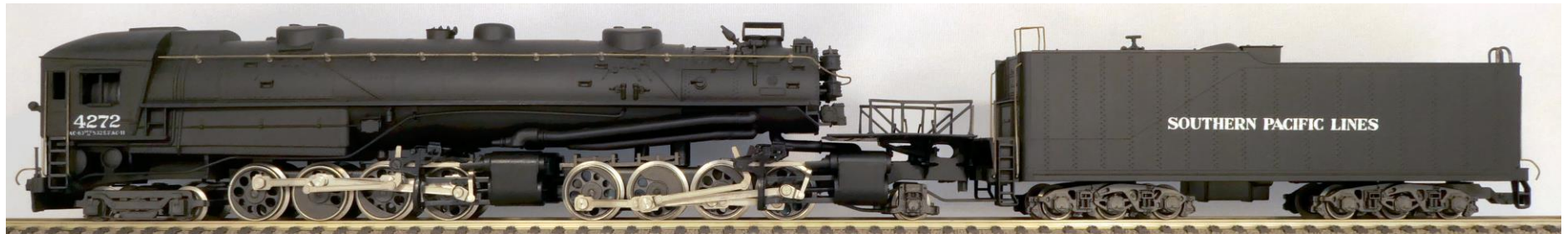
Tenshodo made in 1974 this 4-8-8-2 Cab Forward locomotive for the importer Pacific Fast Mail. This is a factory painted brass model of a Southern Pacific AC-12 class articulated locomotive. Tenshodo made 300 of these locomotives with catalogue number 167. It is a very nicely detailed model with a detailed cab interior. The model is 45 cm long.

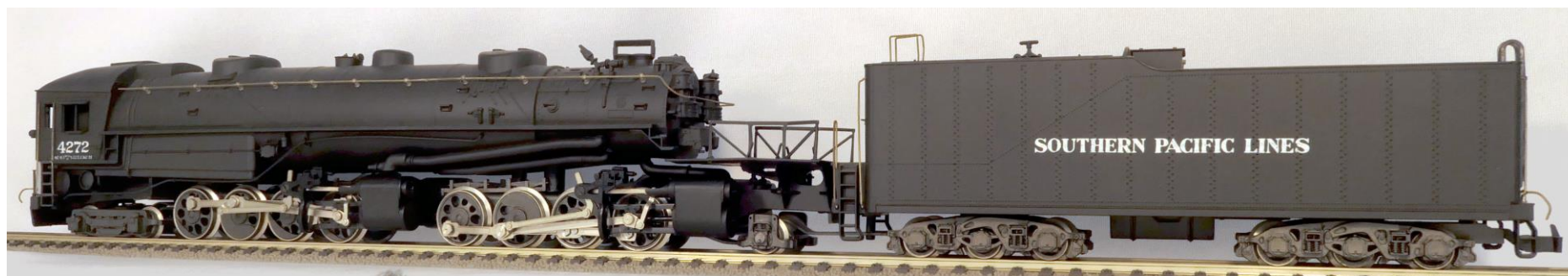






RivaRossi made a model of a Class AC-11 Southern Pacific Cab Forward locomotive. There were no technical differences between the real AC-12 as modelled by Tenshodo (see above) and this AC-11. The models differ greatly however. This RivaRossi model has a plastic locomotive and tender body and has much less detailing. The model with catalogue number 1248 wears the all black livery and Southern Pacific Lines lettering as it had when delivered by Baldwin. Length is 44 cm.

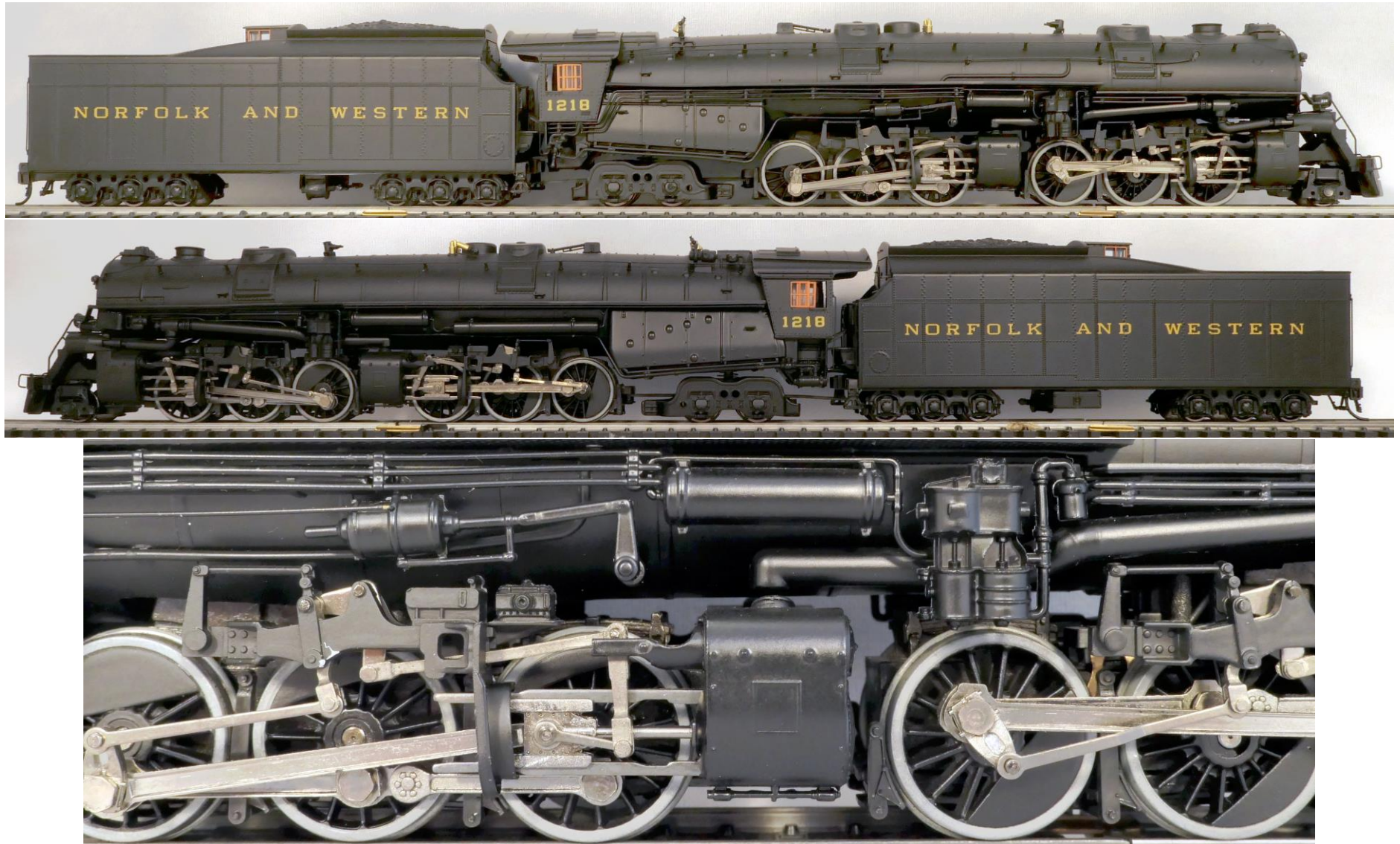




3.4 Norfolk & Western Articulates

The Norfolk & Western had a number of Mallet articulates of different types of which I can present three, all in H0 gauge.

Broadway Ltd made a model of the N&W A Class 2-6-6-4 Mallet in their Paragon range. This is a nicely detailed digital (DCC) model with sound of the locomotive with running number 1218 which is preserved in the Virginia Museum of Transportation. Catalogue number of this 42 cm long model is 012.





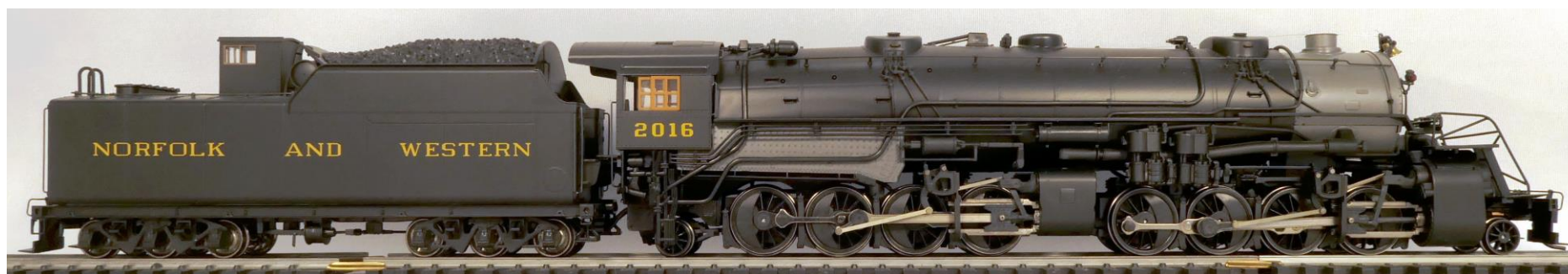


The RivaRossi Norfolk & Western Y6b Mallet was the first articulated model of any model railway manufacturer in H0 not counting the Japanese brass production. The model with catalogue number 1238 was made in 1964. It was, together with a Pocher Bowker 2-4-0 locomotive, after my Märklin 3-rail trains the first 2-rail item and thus the start of a collection. I acquired these in 1972 from famous Dutch model car collector Ben who had bought these items new since he was impressed but decided to stay with model cars. The 2-8-8-2 is a plastic model of this late Mallet, introduced around 1950, with all driving wheels powered and a length of 41 cm.





The Norfolk & Western Y3, a Mallet locomotive of USRA design made in 1919, was modelled by Roco in H0 in 1995 as a nicely detailed locomotive. These Mallets were designated by Roco as the USA edition, which had no further follow up, and were available for various railway companies. The 2-rail electric locomotive with catalogue number 93350 is 39 cm long.



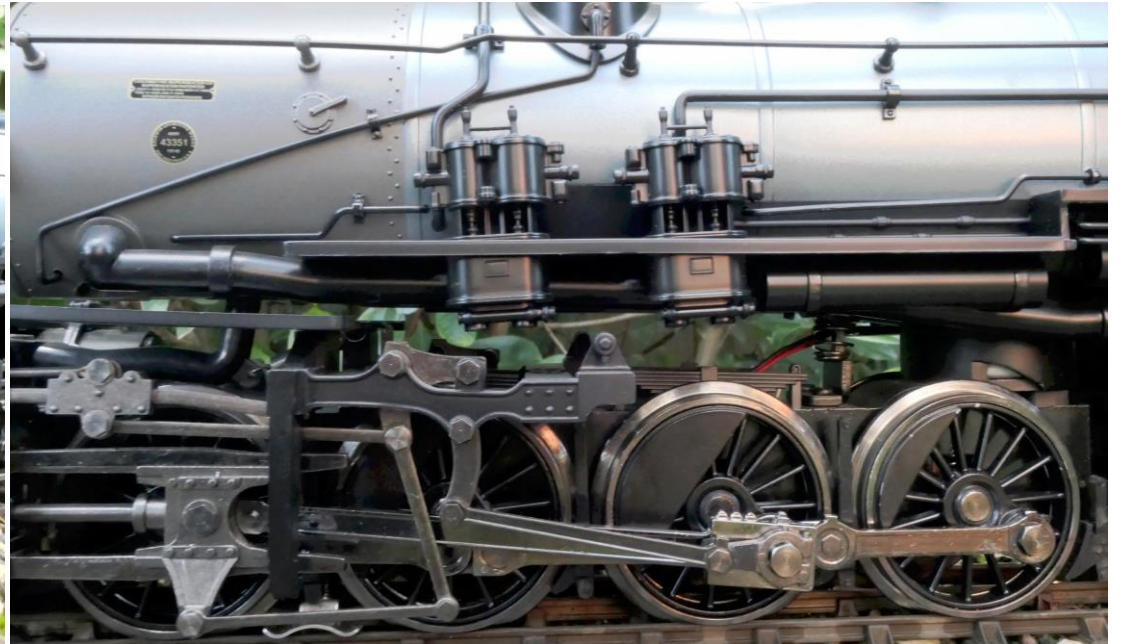


3.5 Some other articulates

Many other US railroads had articulated locomotives. Here are some H0 gauge models of B&O, C&O and DH articulated locomotives. But first a very large articulated locomotive in 1 gauge: the 6-cylinder Erie Railroad Triplex.

MTH made in their range of Railking 1 Gauge trains this model of a so-called Triplex Mallet type 2-8-8-2 locomotive with 3 sets of cylinders. This model to a scale of 1:32 has a locomotive and tender body of plastic. All 12 wheels are driven and since the locomotive is quite heavy it has a lot of pulling power, like the original Triplex had. The model (catalogue number 70-3022) had sound and smoke and a length of 107 cm. Note the smoke stack at the back of the tender which was the exhaust for the rear set of cylinders; the model also has a smoke generator for this stack.







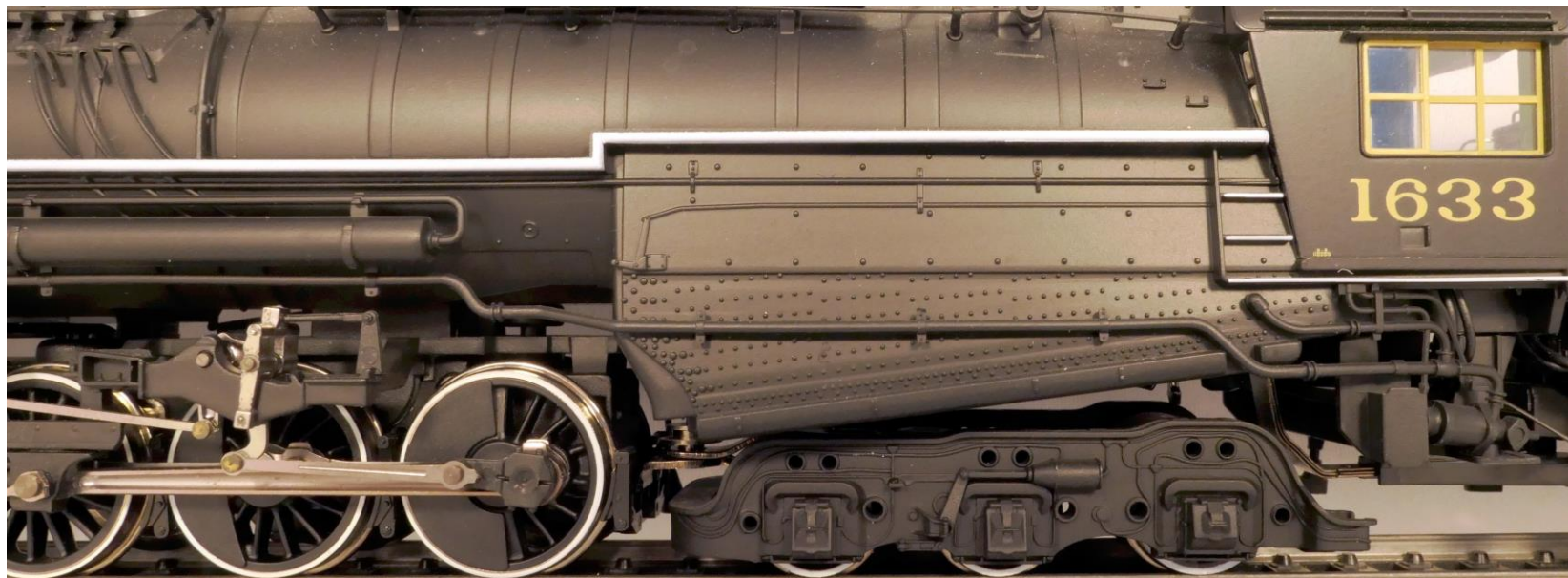
The Baltimore & Ohio had some 2-8-8-0 Mallet locomotives called the EL class. RivaRossi made a model of a B&O EL5 locomotive with running number 7155. RivaRossi based this model on their Norfolk & Western Y6b 2-8-8-2 locomotive (see 3.4), so it is not an accurate model but it comes with a B&O Vanderbilt tender. The model was introduced in 1978 with catalogue number 1265. Length of this articulated Mallet type is 40 cm.





The Chesapeake & Ohio railroad Allegheny 2-6-6-6 articulated locomotive with 7-axle tender shown here is a later RivaRossi model made in 2002 with catalogue number 5454. The detailing is much better than that of the previous RivaRossi articulated locomotives. It is a plastic bodied model with a length of 44 cm.





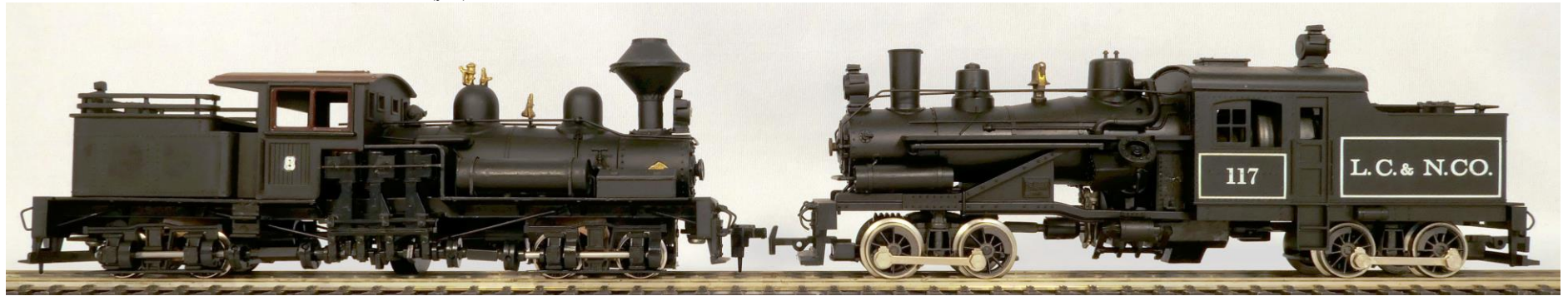
Since the 4-6-6-4 Challenger locomotives were not only used by the Union Pacific (see 3.2) RivaRossi made this type also in other road names. Here is a model of a Delaware & Hudson railroad Challenger as built by ALCO in 1940. RivaRossi based this on the Union Pacific model but correctly changed the tender type and the position of the headlight. Length of this model is 42 cm; the RivaRossi catalogue number of this model, that I acquired when on an Italian holiday in 1986, is 1268.





3.6 Logging Articulates

The Shay, Climax and Heisler are the three known types of articulated locomotives that were predominantly used in the woods at logging railroads. I present a H0 gauge Shay and Heisler. I do not have a model of a Climax (yet).

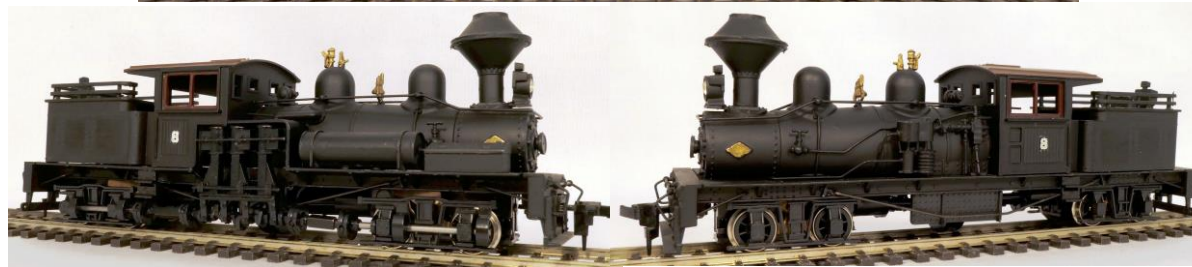
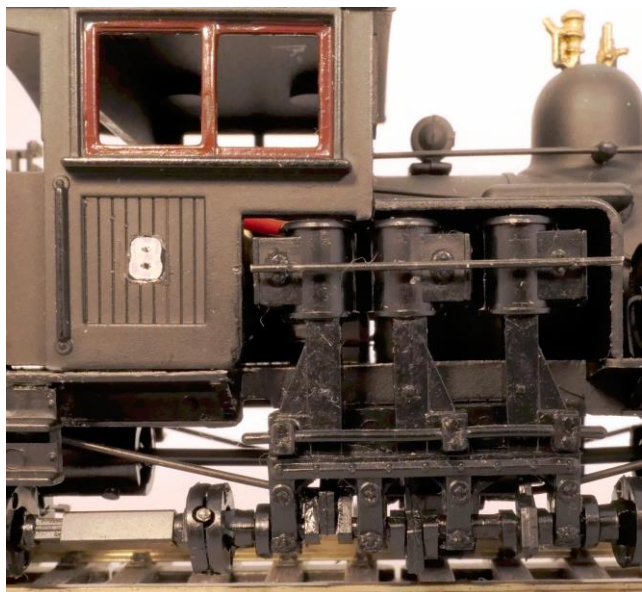


My H0 gauge Shay I have made from an MDC Roundhouse kit with catalogue number 360. It is a model of a Shay as made by Lima Locomotives Works between 1880 and 1938. They made Shays in all sizes; this is a standard gauge 2-truck Shay. The kit has plastic and metal parts and includes the working movements of cylinders and linkage. Length of the model, which has 2-rail electric mechanism which allows for very slow running, is 16 cm.





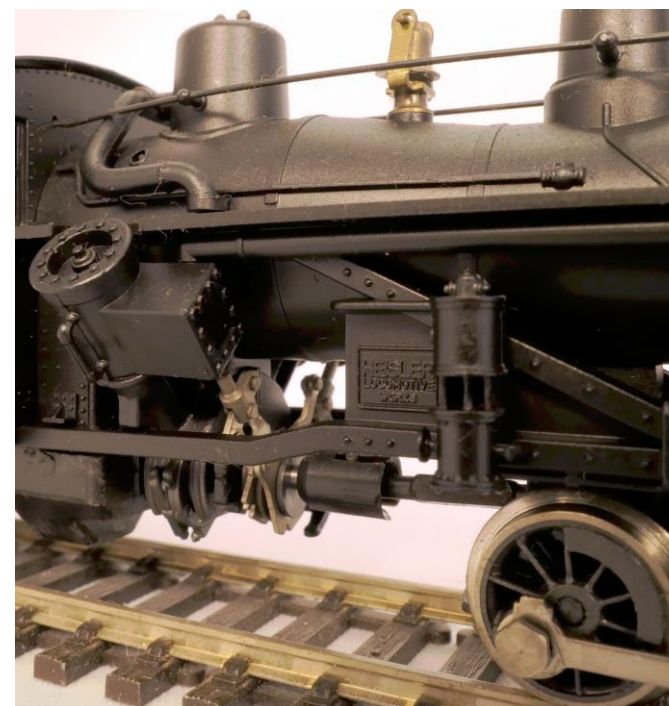
As can be seen left the boiler of a Shay does not sit in the middle of the frame, since the 3 cylinders are at one side. The weight is distributed evenly anyway.



The Heisler in H0 gauge is made by RivaRossi. RivaRossi made these locomotives with a number of different logging company names. This one is from the L.C.&N.CO. (Lehigh Coal & Navigation Company). It came in a set called "The Timberjack Train" with catalogue number 246 made in 1977, the set also included four logging cars.



The typical Heisler cylinder and drive layout is correctly modelled. The builders plate of the "Heisler Locomotive Works" is visible (see below).





4 German articulated locomotives

The German articulated locomotives in my collection are all tank locomotives in H0 gauge.

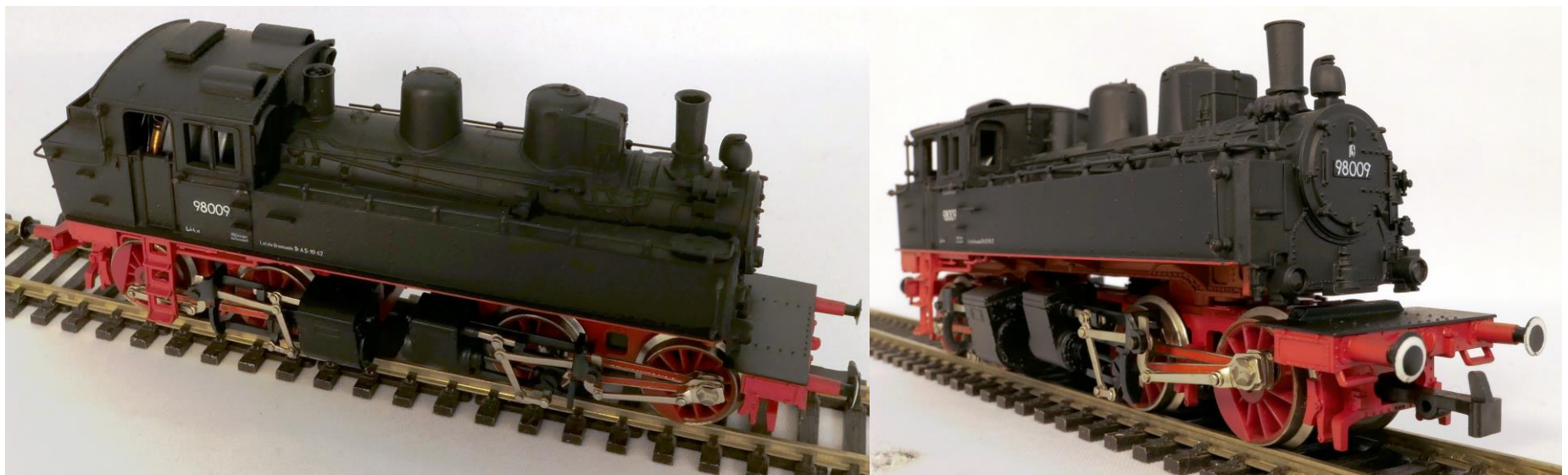
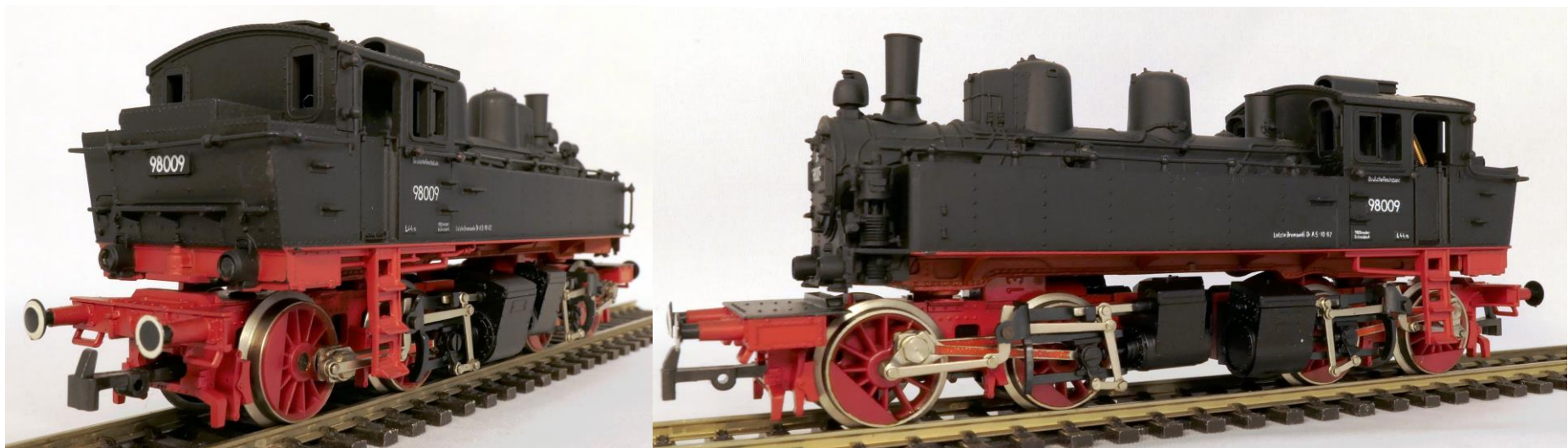
The first to mention here is a model of a Bavarian class BB II 0-4-4-0 made by Roco. This class were locomotives of the Mallet type specially developed for the Bavarian branch lines with tight curve radii. They were manufactured by Maffei between 1899 and 1903. The Roco model is nicely detailed and has a good-looking Bavarian green and black livery with white stripes. The model is not articulated; all four axles are fitted in one frame. It is a 2-rail electric model with a length of 12 cm. Catalogue number is 43281.





The next three models are all made by RivaRossi. First is the Deutsche Reichsbahn 0-4-4-0 Meyer 4-cylinder compound locomotive of the Baureihe 98⁰ (Formerly Saxonian type I TV). A Meyer articulated locomotive has no wheels rigidly affixed to the boiler; they are mounted on two bogies with the cylinders. The RivaRossi model was first made in 1977 and is to a bit larger scale than 1:87; RivaRossi used this scale of about 1:80 then for their European models. It is a nicely detailed 2-rail electric model with a length of 14 cm and catalogue number 1340.





The cylinder size differs; the low-pressure cylinders are larger and are positioned at the back while the smaller high-pressure cylinders are located at the front.

I have RivaRossi models of four versions of the large German 0-8-8-0 Mallet, which was a heavy goods train tank locomotive. The versions are from front to rear the original Bavarian Class Gt 2×4/4 locomotive in yellow photo colours, the same locomotive type in normal Bavarian green livery, a blue version of a locomotive reconstructed in 1925 in the livery for an exhibition in München, Germany and the later black Baureihe 96 in the livery it had at the pre-war German national railway. All these models have a length of 21 cm



First presented is the Bavarian Gt 2×4/4 with number 5751. 5751 was the first of the series made in 1913 and was painted yellow when the builder photos were made. This RivaRossi model is powered on all axles. It was made in 1982 with catalogue number 1355. It is a 2-rail electric version.





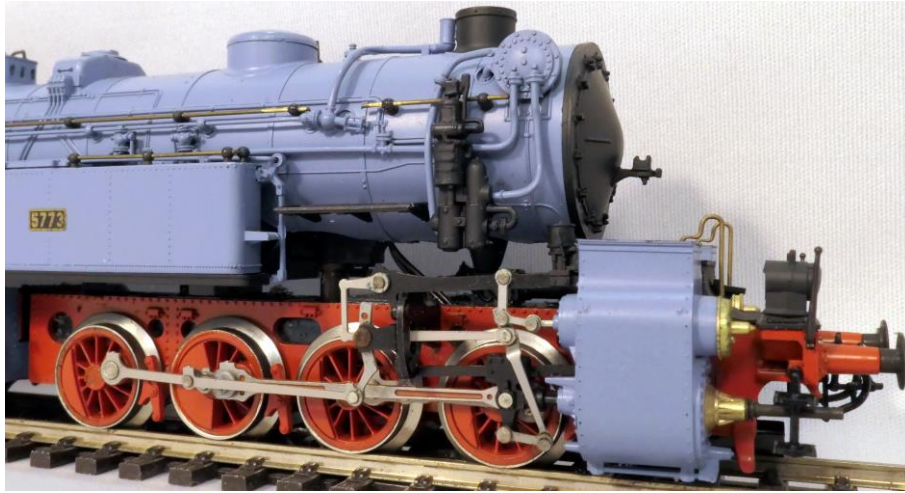
This green version is a RivaRossi 3-rail AC version of a Gt 2x4/4 locomotive with number 5766, also a model based on the first series made in 1913/1914. This Bavarian standard green locomotive has catalogue number 1024.



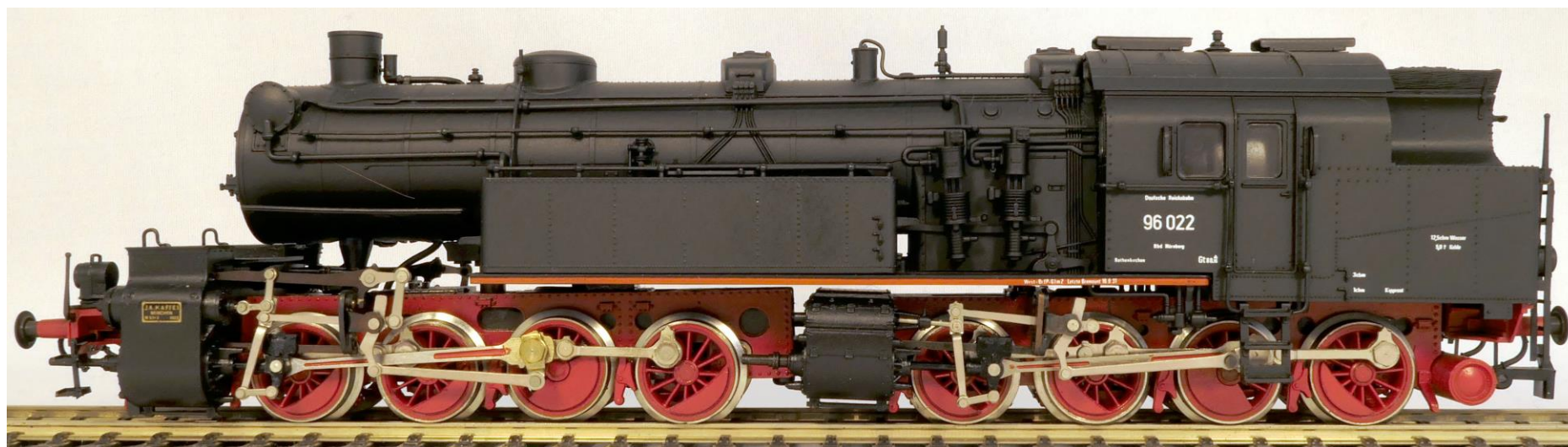
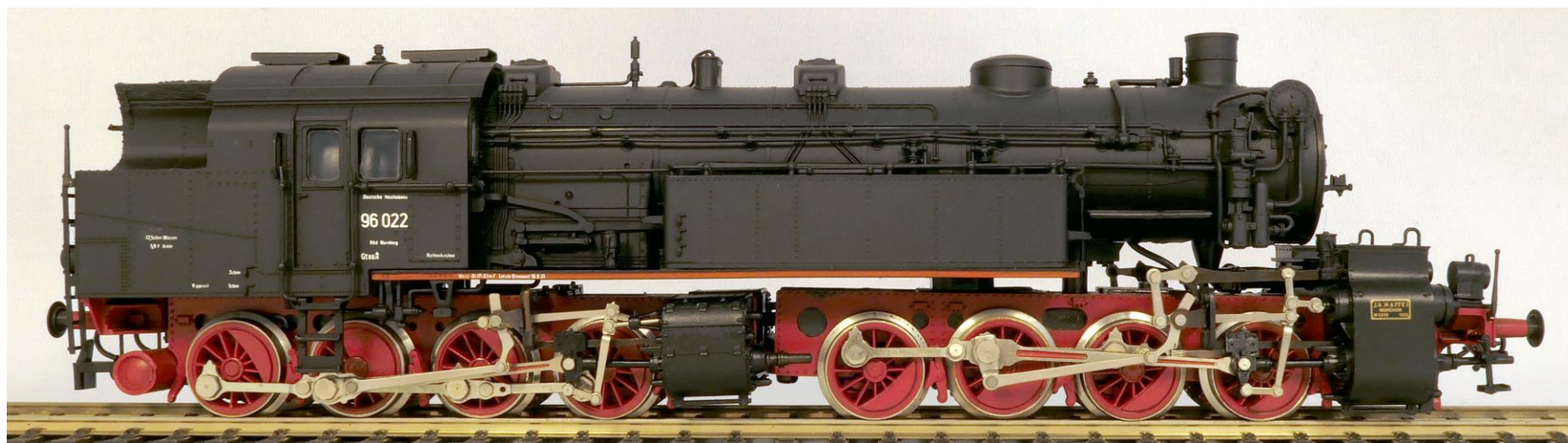


RivaRossi catalogue number 1025 is a 3-rail AC blue version of No 5772, a locomotive of the second series Gt 2x4/4's of 1923 but shown as reconstructed in 1925 and in the livery it had when presented at an exhibition in München.





The Deutsche Reichsbahn black version with number 96 022 is one of a second lot that was made in 1923. The RivaRossi model was made in 1980 and is a very nicely detailed locomotive. This is a 2-rail electric version with catalogue number 1352. Note that there are detail differences between the two RivaRossi versions, especially noticeable is the difference between the sandboxes on the boiler top.





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